

Introduction

WEPIA has decided to use the town of Fuheis as a “test market” for its plans to build capacity in schools to undertake its promotional and educational initiatives.

The project has the objective of training staff and students in 5 schools in Fuheis (2 private and 3 public) to improve water usage and water saving in the town, and to measure the effects of their campaign by carrying out surveys before and after their activities, checking knowledge, attitudes and perceptions.

MRO was required to train the staff and students in the market research techniques that will have to be used to carry out the pre-and post survey, while WEPIA employed its expertise on the auditing and educating the public on water saving issues designed to heighten awareness and change water usage behaviour for the better.

The Latin Patriarch of Jerusalem (LPJ) the “Latin School” acted as the main contact in this endeavour, we used their premises for the training sessions.

The **Post-Campaign KAP Survey** consisted of interviews with a random sample of 257 households in Fuheis, carried out during September 2001.

Random routes were drawn up for pairs of interviewers, each pair interviewing around 10 households about their water consumption and habits.

Executive Summary

The results of the second survey wave in the Fuheis area show that people are claiming to make a greater effort to conserve water although measurement of specific actions such as frequency of laundry, car washing and garden watering suggests that habits are largely unchanged.

Awareness of water saving devices has apparently increased significantly. Certainly, there is an increased awareness of specific devices and water savers for faucets have become relatively well known.

About a quarter of those claiming awareness of water saving pieces had installed one of these devices, mainly the savers on faucets. This amounts to about 15% of all households although those not spontaneously aware of such pieces may have them installed in their homes.

Almost all (98%) could name at least one source of water supply to Jordan. The average number of responses was 2.6, and all could cite at least one reason for the shortage of water, with an average of 2.6 responses.

Rainfall is the most widely perceived source of water in Jordan and it is the lack of rain which is regarded as the primary cause of water shortage. Overpopulation is also widely regarded as a contributing problem but few householders believe that consumer wastage is a significant issue.

Awareness of water issues is derived mainly from television but schools are the second source, suggesting that the capacity building through schools is making an impact. However, while the research indicates that households are becoming more aware of water issues and the need to conserve, there is as yet little indication of real action.

1. Water Supply and Conservation

- The frequency of water supply in the Fuheis area has changed considerably since the first wave. The vast majority (80%) receive water once or twice a week, up from 21% in the previous survey.

Frequency of water supply

Base: all respondents

	SEPT. 2001	DEC. 2000
Base:	(257)	(344)
	%	%
1-2 times per week	80	21
3-4 times per week	16	21
5 times per week	1	14
6 times or more per week	2	32
Don't know	1	12
Total	100	100

- The great majority of householders report that the amount of water they receive is sufficient to meet their needs although the level has declined over the past 12 months. This may reflect the timing of the current survey.

Sufficiency of supply

Base: all respondents

	SEPT. 2001	DEC. 2000
Base:	(257)	(344)
	%	%
Is sufficient	75	90
Is not sufficient	25	10
Total	100	100

- The decline of reported sufficiency of mains supply is underlined by the fact that 18% of households need to buy water from tankers (up from 8%).

- People are making more effort to conserve water. (73%) take some kind of action, up from (51%). Most actions have increased. In particular, we note a jump in using water only when necessary, sweeping floors and using buckets to clean car. These are all positive signs of campaign effectiveness.

Action to conserve water

Base: all respondents

	SEPT. 2001	DEC. 2000
Base:	(257)	(344)
	%	%
Using only when necessary	37	18
Sweeping rather than washing floors	25	8
Bottles in toilet tanks	11	6
Partial opening of faucets	-	5
Use of bowl for dishwashing	-	5
Reduced frequency of laundry	14	4
Bucket to clean car	21	3
Install water saving device faucets	7	3
Re-use of water	9	2
Maintenance/repair	1	2
Other actions	4	3
Nothing done	27	49

2. Laundry Habits

- The results show a significant increase in ownership of automatic washing machines although such a change over a period of 10 months seems unlikely.

Type of washing machine

Base: all respondents

	SEPT. 2001	DEC. 2000
Base:	(257)	(344)
	%	%
Non- automatic twin tub	43	53
Non- automatic single tub	7	8
Any non- automatic	50	61
Automatic front loading	39	26
Automatic top loading	9	9
Any automatic	48	35
No machine	2	4
Total	100	100

- Laundry frequency varies considerably from once per week to daily but the majority report washing only once or twice per week. The results indicate a small, but not statistically significant, decrease in frequency.

Frequency of laundry

Base: all washing machine owners

	SEPT. 2001	DEC. 2000
Base:	(253)	(332)
	%	%
1-2 times per week	77	72
3-4 times per week	16	17
5 times or more per week	4	7
Less than once a week	3	4
Total	100	100
Average frequency	2.0 times per	2.1 times per

	week	week
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- The number of loads per wash ranges from one to five or more, the average number of loads being almost 3. There has been no change in this respect since the previous wave.

Number of loads per week

Base: all washing machine owners

	SEPT. 2001	DEC. 2000
	(253)	(332)
Base:		
	%	%
1 load	14	14
2 loads	33	31
3 loads	25	29
4 loads	14	13
5+ loads	13	13
Total	100	100
Average	2.8 loads	2.8 loads

3. Cars and Gardens

- 79% of the households covered by the survey own a car, a slight increase since the last survey.

Car ownership

Base: all respondents

	SEPT. 2001	DEC. 2000
	(257)	(344)
Base:		
	%	%
No car owned	21	26
One car	55	47
Two cars	18	21
Three or more cars	6	6
Total	100	100
Average per household	1.1	1.1
Average among car	1.4	1.5

owners		
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- Frequency of car washing ranges widely from less than once per week to daily but the majority do so only once per week. The pattern is the same across the two waves.

Frequency of car washing

Base: all car owners

	SEPT. 2001	DEC. 2000
Base:	(204)	(253)
	%	%
Once per week	59	56
2-3 times per week	18	20
4+ times per week	4	5
Less than once per week	19	19
Total	100	100

- About two-thirds of car owners wash their vehicles themselves, a slight increase on the previous wave. The use of a hose for this purpose remains high.

How cars washed

Base: all car owners

	SEPT. 2001	DEC. 2000
Base:	(204)	(253)
	%	%
Use a hose	20	18
Use a bucket	44	42
Go to car wash	36	40
Total	100	100

- The majority of respondents had a garden, among whom the average watering frequency is 1.6 times per week.

Frequency of watering the garden

Base: all respondents

	SEPT. 2001	DEC. 2000
Base:	(257)	(344)
	%	%
No garden	33	38
Have garden	67	62
Average frequency	1.6 times per week	1.6 times per week

4. Water Storage and Rain Water Collection

- By far the predominant means of water storage is in tanks, relatively few households having a reservoir. This has remained unchanged.

Means of water storage

Base: all respondents

	SEPT. 2001	DEC. 2000
Base:	(257)	(344)
	%	%
Water tanks	97	95
Reservoirs	10	7
Do not store	1	3

- 10% of respondents reported collecting rainwater, a level similar to the previous wave.

5. Plumbing Fixtures, Leakage and Repairs

- Among the households covered, the average number of faucets inside the house was 4.7 and the average number was 1.8, levels similar to those recorded previously.
- Only a minority (5%) of households reported having a leaking faucet, a lack of time, a lack of knowledge of how to effect a repair and cost being the barriers to fixing the leaks. This has remained constant.
- 22% of households had Turkish bathrooms and almost all (96%) has western bathrooms. The incidence of having Turkish bathrooms has decreased.
- 98% of households had toilet tanks in their bathrooms of which only 12% had a dual flush system. The latter is up slightly from 7%.
- 43% of those having a tank reported that it was of 6-liter capacity but a further 27% did not know its volume. Awareness of volume has increased significantly.
- Only 3% (down from 6%) of those with toilet tanks reported a leakage, a lack of time, lack of time, lack of know-how and cost being the main barriers to fixing.
- Virtually all (98%) of households have a shower, most having one unit only. Only 2% of these reported a leakage. This is unchanged.
- The great majority (91%) of households claimed that it took only 1-2 days to have any leaks repaired. Most (69%) rely on a plumber for such work.

6. Water Billing

- The majority (96%) of households report receiving their water bill every 3 months.
- 27% of respondents were unable to report the amount of their last water bill. Among others, the amount ranged from JD 2 to over JD 100, the average among all households being JD 27. This is an increase on the previous wave which may reflect time of year of the survey.

Although 48% of households believe that they pay as much as they have consumed, 39% feel that they pay for more than they consume. The proportion feeling that they have paid more than consumed had increased significantly.

Bill compared to consumption

Base: all respondents

	SEPT. 2001	DEC. 2000
Base:	(257)	(344)
	%	%
Pay as much as consumed	48	59
Pay more than consumed	39	33
Pay less than consumed	6	2
Don't know	7	6
Total	100	100

7. Water Saving Pieces

- 67% of respondents claimed to have heard of water saving pieces compared to 59% recorded in the previous survey. However, a change in the question wording from “devices” to “pieces” may have affected the results.
- Among those aware of water saving pieces, almost all claimed to have heard of water savers on faucets, half to have heard of savers on showers and a third to have heard of 6-liter capacity toilet tanks, once these devices had been described to them.

Awareness of specific devices

Base: all aware of water saving pieces

Base:	(172)
	%
Water savers on faucets	92
Water savers on showers	45
Toilet tanks with 6 liter capacity	33
None of these	3

- TV and to a lesser extent schools and print media had played the major role in creating awareness of these water saving pieces.

Sources of awareness of water saving pieces

Base: all aware of water saving pieces

	1 st mention	Any mention
Base:	(172)	(172)
	%	%
TV	56	68
Schools	21	39
Newspapers	6	35
Friends\relatives	8	26
Books	8	13
Other	1	1

- 22% of those aware of water saving pieces had installed such an item in their home. Water savers on faucets were clearly the most widely installed device.

Incidence of installing water saving devices in the home

Base: all aware of water saving pieces

Base:	(172)
	%
Water savers on faucets	17
Water savers on showers	3
Toilet tank with 6 liter capacity	3
None installed	77

- Among the few that had installed such devices, sources of purchase included sanitary ware stores, plumbers and construction material stores.
- Females, those aged up to 34 years and those of secondary education were most likely to be aware of water saving pieces.

**Awareness of water saving pieces
by gender, age and education**

Base: all respondents

			Aware	Not aware
Base:				
All	(257)	%	67	33
Male	(70)	%	51	47
Female	(187)	%	73	27
18-24	(37)	%	73	27
25-34	(57)	%	74	26
35-44	(84)	%	62	38
45+	(79)	%	64	36
No formal	(14)	%	36	64
Up to elementary	(19)	%	63	37
Intermediate	(28)	%	68	32
Secondary	(68)	%	75	25
Post secondary	(69)	%	65	35
University	(59)	%	68	32

- Among those aware of these devices, the bases are generally too small to draw any definitive conclusions about installation by demographics. However, incidence of installation does not appear to vary significantly according to age or education.

**Incidence of installation
by age and education**

Base: all aware of water saving pieces

			Installed	Not installed
	Base:			
All	(172)	%	22	78
Up to 44 years	(121)	%	21	79
45 years +	(51)	%	22	78
Up to secondary	(87)	%	23	77
Post secondary	(85)	%	20	80

8. Awareness of water sources and of reasons for shortages

- Rainfall, surface water and dams are most widely thought of as Jordan's supply of water. Asked to name 3 water sources, 75% mentioned rainfall, 51% named surface water and 49% mentioned dams. Other relatively widely mentioned sources include renewable underground water (35%) and non-renewable underground water (29%).

**Sources of water supply
(3 named sources)**

Base: all respondents

Base:	(257)
	%
Rainfall	75
Surface water	51
Dams	49

Renewable underground	35
Non-renewable underground	29

- TV and to a lesser extent schools and the print media were the main sources of awareness:

**Sources of awareness of
water sources**

Base: all aware of water sources

	1 st mention	Any mention
Base:	(251)	(251)
	%	%
TV	50	79
School	27	52
Newspapers	4	55
Friends\relatives	7	36
Books	10	18
Other	2	3

- Asked to name three reasons for the shortage of water in Jordan, little rainfall was widely mentioned (82%) followed by over population (51%) and old, worn out networks (30%). Only one in ten thought consumer wastage was one of the top three reasons.

Reasons for water shortage

Base: all respondents

Base:	(257)
	%
Little rainfall	82
Over population	51
Old, worn out networks	30
Industrial expansion	19
Industrial waste	18
Overuse of wells	17
Consumer wastage	13
Agriculture	9

- TV is clearly the major source of information on this subject, followed by the print media and schools.

**Sources of awareness of
reasons for water shortage**

Base: all respondents

	1 st mention	Any mention
Base:	(257)	(257)
	%	%
TV	65	85
Newspapers	5	52
Schools	16	35
Friends\relatives	7	38
Books	4	12
Other	3	5